

Remarks/Arguments

The preceding amendments and following remarks are submitted in response to the non-final Office Action mailed January 4, 2006. With this amendment, claims 1, 13, 18, and 19 have been amended and claim 17 has been cancelled. Claims 1-16 and 18-27 remain pending in this application. Reconsideration and reexamination of all pending claims is respectfully requested.

Specification Objections

In paragraph 1 of the Office Action, the Examiner object to the use of the trademark NOMEX. It should be capitalized wherever it appears. Accordingly, the specification has been amended to recite "NOMEX" instead of "nomex."

In paragraph 2 of the Office Action, the Examiner objected to the use of "manufacturing" on page 9, line 17. The specification has been amended to recite "manufactured" according to the Examiners suggestion.

35 U.S.C. § 112 Rejections

In paragraph 4 of the Office Action, claim 2 was rejected as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. The Examiner stated that it is unclear where the first interlocking edge is located and that the Examiner is unsure if the second interlocking edge recited in claim 3 is the same as the second interlocking edge recited in claim 2. Claim 3 has been amended to recite "the first and the second interlocking edges" to clarify that the second interlocking edge is the same as recited in claim 2.

In paragraph 5 of the Office Action, claim 13, 17, 18, and 19 were objected to as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regards as the invention.

With respect to claim 13, "nomex honeycomb" has been amended to recite "NOMEX honeycomb".

With respect to claim 18, "first insulation piece" has been changed to recite "first foam piece".

With respect to claim 19, which ends with a semicolon, it has been amended to end with a period. Applicant respectfully request withdrawal of the objection and allowance of the claims.

35 U.S.C. § 102(b) Rejections

In paragraph 11 of the Office Action, claims 1, 5, 17, and 18 were rejected under 35 U.S.C. 102(b) as being anticipated by McGlashan et al. (GB 219211). The Examiner states that McGlashan et al. discloses a building block with a first skin (12) having a first face, a second skin (10) having a first face spaced apart the first skin (12) first face, and a reinforcing member (A) having a first surface fixed to the first skin (12) first face and a second surface fixed to the second skin (10) first face. A first foam piece (B) has a first surface fixed to the first skin first face, a second surface fixed to the second skin first face, and a third surface facing a third surface of the reinforcing member (A). A second foam piece (C) has a first surface fixed to the first skin (12) first face, a second surface fixed to the second skin (10) first face, and a third surface facing a fourth surface of the reinforcing member. After careful review, the Applicant must respectfully disagree.

McGlashan et al. teaches a concrete building block having greater insulating properties than prior building blocks. The building blocks taught are placed edge-to-edge relationship to form a structure, such as a wall, with the blocks having an inner face and an outer face forming an inner face of the wall and an outer face of the wall. The insulation is provided between the inner face of the wall and the outer face of the wall. In addition, the blocks are positioned so that the foam extends through the structure and is in contact with foam of adjacent blocks and the mortar used to secure the blocks is only placed on the outer face so as to not come between the foam pieces and reduce the insulation of the wall. (Page 2, lines 5 –19). This arrangement forms a wall with a continuous foam layer providing greater insulation of the structure. However, it appears that in this arrangement, the load on the blocks would be in a direction parallel to the plane of faces, and, as such, the reinforcing member would not bear any load, but the faces would. As taught by McGlashan, the purpose of the reinforcing member, or bridge as it is called in McGlashan, is to assist in the manufacturing process. (page 2, lines 25-26). Nowhere does McGlashan teach or suggest that the bridge provides any

reinforcement or support to the building block. Therefore, the bridge of McGlashan, which the Examiner called a reinforcing member, is actually not reinforcing anything.

In contrast, claim 1 recites:

1. A structural panel for use in building construction, comprising
 - a first skin having a first face;
 - a second skin having a first face spaced apart from the first skin first face;
 - a reinforcing member having a first surface fixed to the first skin first face and a second surface fixed to the second skin first face;
 - a first foam piece having a first surface fixed to the first skin first face, a second surface fixed to the second skin first face, and a third surface ~~facing~~ abutting a third surface of the reinforcing member; and
 - a second foam piece having a first surface fixed to the first skin first face, a second surface fixed to the second skin first face, and a third surface ~~facing~~ abutting a fourth surface of the reinforcing member.

Therefore, claim 1 is believed to be allowable over McGlashan et al. Additionally, for similar reasons, as well as others, dependent claims 2-16 and 18-20 are believed to be allowable over McGlashan et al.

In paragraph 12 of the Office Action, claims 1, 11, and 19 were rejected under 35 U.S.C. 102(b) as being anticipated by Hatch et al. (US 4083159). The Examiner states that Hatch et al. discloses a panel with a first skin (12) having a first face, a second skin (14) having a first face spaced apart from the first skin (12) first face, and a reinforcing member (16, 18) having a first surface fixed to the first skin (12) first face and a second surface fixed to the second skin (14) first face. A first foam piece (D) has a first surface fixed to the first skin (12) first face, a second surface fixed to the second skin (14) first face, and a third surface facing a third surface of the reinforcing member (16, 18). A second foam piece (E) has a first surface fixed to the first skin (12) first face, a second surface fixed to the second skin (14) first face, and a third surface facing a fourth surface of the reinforcing member.

Claim 1 has been amended as follows:

1. A structural panel for use in building construction, comprising
 - a first skin having a first face;
 - a second skin having a first face spaced apart from the first skin first face;

a reinforcing member having a first surface fixed to the first skin first face and a second surface fixed to the second skin first face;

a first foam piece having a first surface fixed to the first skin first face, a second surface fixed to the second skin first face, and a third surface ~~faeing-abutting~~ a third surface of the reinforcing member; and

a second foam piece having a first surface fixed to the first skin first face, a second surface fixed to the second skin first face, and a third surface ~~faeing-abutting~~ a fourth surface of the reinforcing member.

Claim 1 recites a third surface of the first foam piece abutting a third surface of the reinforcing member, and a third surface of the second foam piece abutting a fourth surface of the reinforcing member. Hatch et al., does not teach the third surface of the first foam piece abutting a third surface of the reinforcing member and the third surface of the second foam piece abutting the fourth surface of the reinforcing member. In contrast, Hatch recites:

In the panel 10 of FIG. 1 the ribs 16 are disposed so as to be generally normal to the planes of the faces 12 and 14. The stiffening elements 18 which are generally rectangular in their configuration as shown in FIG. 3 are disposed *so that each different element 18 abuts a different one of the ribs 16* and is generally normal to the planes of the faces 12 and 14.

(Emphasis added) (column 3, lines 58-64). Additionally, as is clearly shown in Figure 1 and Figure 2, the stiffening elements 18 and 56 are abutting ribs 16 and 55, and not the foam. Therefore, claim 1 is believed to be allowable over Hatch et al. Additionally, for similar reasons, as well as others, all dependent claims 2-16 and 18-20 are believed to be allowable over Hatch et al.

35 U.S.C. § 103(a) Rejections

In paragraph 23 of the Office Action, claims 21, 22, 23, 24, 26, and 27 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hatch et al. The Examiner states that Hatch et al. discloses a panel that meets all of the structural limitations as described in claims 21, 22, 23, 23, 26, and 27, and it would have been obvious to one of ordinary skill in the art to make a panel using the structure disclosed by Hatch et al.

After careful review, Applicant must respectfully disagree. Claim 21 recites:

21. A method of making a panel, comprising
providing a first piece of foam;
providing a first reinforcing member;

- providing a second piece of foam;
- forming a first planar surface including a surface from each of the first piece of foam, the first reinforcing member, and the second piece of foam;
- forming a second planar surface including a surface from each of the first piece of foam, the first reinforcing member, and the second piece of foam;
- providing a first skin;
- providing a second skin;
- applying a first skin to the first planar surface; and
- applying a second skin to the second planar surface.

Hatch et al. does not appear to teach “forming a first planar surface including a surface from each of the first piece of foam, the first reinforcing member, and the second piece of foam”, “forming a second planar surface including a surface from each of the first piece of foam, the first reinforcing member, and the second piece of foam”, “applying a first skin to the first planar surface”, or “applying a second skin to the second planar surface as recited in claim 21”.

In contrast, as shown in Figure 4, Hatch et al. teaches a method of weaving the fabric, including the ribs, then making the stiffening elements, then inserting the stiffening elements in the fabric, then inserting sound absorbing material in fabric, then resin impregnate the fabric, and finally curing the fabric. According to this process disclosed by Hatch, it would not be obvious of one of ordinary skill to use the method recited in claims 21. Actually, using the structure taught according to Hatch et al, it would be impossible to form a planar surface including a surface from each of the first piece of foam, the first reinforcing member, and the second piece of foam. The reinforcing member in this planar surface has the first piece of foam on one side and the second piece of foam on the opposite side. Then, the first skin is applied to this planar surface. Whereas in Hatch et al., the reinforcing member has a first piece of foam on one side and abuts a rib on the other side, with the second piece of foam on the opposite side of the rib. The rib, however, is woven into the first face and the second face making it impossible to form a planar surface with the first foam piece, second foam piece, and the reinforcing member, along with making it impossible to apply the first face to the first planar surface. Thus, it would not be obvious to one of ordinary skill in the art to make a panel using the structure disclosed by Hatch et al. Therefore, claim 21 is believed to be

allowable over Hatch et al. Additionally, for similar reasons, as well as others, all dependant claims 22-27 are believed to be allowable over Hatch et al.

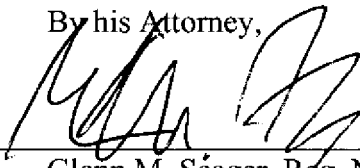
Reexamination and reconsideration are respectfully requested. It is submitted that all pending claims are currently in condition for allowance. Issuance of a Notice of Allowance in due course is anticipated. If a telephone conference might be of assistance, please contact the undersigned attorney at 612-677-9050.

Respectfully submitted,

MICHAEL PALMERSTON

By his Attorney,

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Glenn M. Seager, Reg. No. 36,926
CROMPTON, SEAGER & TUFTE, LLC
1221 Nicollet Avenue, Suite 800
Minneapolis, Minnesota 55403-2420
Tel: (612) 677-9050